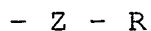


What is claimed is:

1. A water-based ink comprising a colored microparticle dispersion having water and a microparticle containing a resin and a colorant, wherein the microparticle has a core part and a shell part to form a core-shell structure and the core part and the shell part are cross-linked with a cross-linking agent.

2. The water-based ink of claim 1, wherein the resin contained in the microparticle has a group represented by General Formula (A):

General Formula (A)



wherein R is a hydrogen atom, a hydroxy group, an alkyl group, an aryl group or a heterocyclic group; Z is a block polymer unit or a random polymer unit containing an ethylene oxide group or a propylene oxide group, a molecular weight of Z being from 88 to 30000.

3. The water-based ink of claim 1, wherein a polymerizable emulsifying compound is used to prepare the colored microparticle dispersion.

4. The water-based ink of claim 1, wherein a volume average diameter of the microparticles is 10 to 100 nm.
5. The water-based ink of claim 1, wherein a variation coefficient of the volume average diameter of the microparticles is not more than 80%.
6. An ink-jet ink containing the water-based ink of claim 1.
7. A method of preparing the colored microparticle dispersion of claim 1, wherein the cross-linked core-shell particle is prepared by the method comprising the steps of:
  - (i) dissolving a colorant and a resin in a water-insoluble organic solvent to obtain a colorant solution;
  - (ii) mixing the colorant solution with water and an emulsifying agent so as to obtain a colorant emulsion; and
  - (iii) adding a cross-linking agent to the colorant emulsion so as to form the cross-linked core-shell particle.
8. A method of forming an image, comprising the step of ejecting a droplet of the ink-jet ink of claim 6 through an

ink-jet head in accordance with a digital signal onto an ink receiving sheet.